

**REMARKS**

Claims 1-35, 39-41 and 43-48 are pending. Claims 36-38, 42 and 49-50 have been withdrawn due to a restriction requirement. In the Office Action mailed September 16, 2003, the Examiner rejected claims 1-35, 39-41 and 43 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,252,952 ("Kung"). The Examiner rejected claim 44 under 35 U.S.C. 102(e) as being anticipated by U.S. Pub. No. 2002/0010803 ("Oberstein"). Additionally, the Examiner rejected claims 45-48 under 35 U.S.C. 103(a) as being unpatentable over Kung in view of U.S. Patent No. 6,493,760 ("Pendlebury").

**I. Response to Rejection of Independent Claim 1**

The Examiner rejected claim 1 under 35 U.S.C. 102(e) as being anticipated by Kung. In making this rejection, the Examiner asserted that the "system management server" in Kung reads on Applicants' claimed "directory server." However, the system management server in Kung is not involved in real-time call processing but rather generally manages the overall system. As described in Kung, "[t]he system management (SM) server 216 may include responsibility for the overall operation state and functioning of components in the broadband network 1, either alone, or in combination with other system management servers 216. The System Management (SM) server 216 may be variously configured to provide monitoring and administrative functions for devices within the broadband network 1." Col. 8, lines 15-21.

As the System Management server is not involved in real-time processing of calls, the particular sections in Kung cited by the Examiner accordingly do not discuss the resolution of customer addresses and network addresses. Thus, these sections simply do not teach or suggest "the directory server translating in both directions, as appropriate between a network address

corresponding to a first user name from said plurality of user names and a customer address for requests within the plurality of private users," as is claimed by Applicants.

Further, the customer addresses of Applicants' claim 1 are statically assigned to the private users. As a user moves to a different location within the private network, the user would keep the same customer address (e.g., the last four digits of the subscriber's ten digit network address). A directory server, however, "dynamically alters which network addresses correspond to the customer addresses based on locations of the private users within the private network." As claimed by Applicants, the customer address dialed to complete an internal call is not necessarily the last four digits of the subscriber's network address, because depending on the subscriber's location within the private network, the network address associated with the subscriber's customer address may have to be changed at the time of service. A domain name server translates the network address to an Internet Protocol address, and the "associations between network addresses and Internet Protocol addresses are statically assigned." That is, the association between a network address and a particular Internet Protocol address wouldn't necessarily change based on the location of users within the private network.

Thus, Applicants' claim 1 includes an additional level of abstraction that is neither taught nor suggested by Kung. In Kung, a user that changes location within the private network would receive a new network address and a new private network address (e.g., the last four digits of the directory number). That is, in Kung the association between directory numbers and other identifiers remains static regardless of where the user is on the private network, while Applicants claim a dynamically alterable association between a customer address and a network address depending on a user's location on the private network. This allows a user to change location within the private network to a device with a different network address, and it also allows the

user to keep the same customer number and to port the user's customized calling preferences to the new device.

Therefore, Applicants' independent claim 1 is neither taught nor suggested by Kung and is in condition for allowance. Accordingly, dependent claims 2-13 are also in condition for allowance.

## II. Response to Rejection of Independent Claim 14

The Examiner rejected claim 14 under 35 U.S.C. 102(e) as being anticipated by Kung. In making this rejection, the Examiner asserted that the "priorities" in Kung reads on Applicants' claimed "privileges." However, Kung describes that "IP packets traveling through the IP network provide for priority so that, for example, voice packets are given priority over data packets to maintain certain VoIP telephony QoS requirements and a leased line concept for packet traffic which may have an even higher priority." Col. 6, lines 25-30. The priority taught in Kung is based on the type of call (e.g., whether the call is a voice, data or video call) and not based on the particular calling and called parties.

In contrast, Applicants' claim 14 includes "evaluating a set of privileges associated with the calling and called party." The privileges are then used in conjunction with "a set of terminating options supplied by the called party, to establish permission to set up the call and to identify a precise terminating network address." The terminating options supplied by the called parties can be, for example, selective call forwarding, selective forwarding to voicemail, or other such options. The privileges can be, for example, whether the calling party is authorized to breakthrough an existing call of the called party in order to complete that call or whether the calling party is not authorized such that the calling party gets a busy signal or goes to voicemail.

The privileges claimed by Applicants are different than the priorities taught in Kung, and therefore Kung's "priorities" do not read on Applicants' "privileges." Moreover, the priorities described in Kung are based on the type of call and not based on the particular parties involved in the call. For example, Kung describes that voice calls might receive a higher priority than data calls. The particular parties placing the call are not then relevant to Kung's priority determination -- only the type of call they are making. However, Applicants claim a method in which privileges associated with the calling and called party are used in conjunction with terminating options supplied by the called party to establish permission to set up the call and to identify the precise terminating network address.

Therefore, Applicants' independent claim 14 is neither taught nor suggested by Kung. According, independent claim 14 and dependent claims 15-24 are allowable.

Additionally, Claim 15 has been amended to clarify that the customer addresses are statically assigned to the private users, that associations between the customer addresses and network addresses are dynamically alterable based on locations of private users within the private network, and that associations between network addresses and Internet Protocol addresses are statically assigned. As previously described with respect to Applicants' claim 1, this is neither taught nor suggested by Kung.

### **III. Response to Rejection of Independent Claim 25**

The Examiner rejected claim 25 under 35 U.S.C. 102(e) as being anticipated by Kung. Claim 25 has been amended to clarify that the server-based interface uses statically assigned customer addresses for calls between devices on the private network and statically assigned associations between network addresses and Internet Protocol addresses. The server-based interface, however, uses associations between the customer addresses and the network addresses

that are dynamically alterable. As previously described with respect to claim 1, this neither taught nor suggested by Kung. Therefore, independent claim 25 and dependent claims 26-29 are allowable.

#### **IV. Response to Rejection of Independent Claim 30**

The Examiner rejected claim 30 under 35 U.S.C. 102(e) as being anticipated by Kung. Claim 30 has been amended to clarify that the set of privileges for a calling party and a called party are evaluated before establishing a telephone call in order to determine whether the telephone call can be completed, and, for example, can also be used to determine where the call should be routed in case the called party is at a different location. As previously described with respect to Applicants' claim 14, Kung's "priorities" does not read on Applicants' "privileges," because, for example, Kung's priorities are only used to distinguish among types of calls (e.g., voice calls or data call) and not the particular parties making the calls.

Accordingly Applicants' independent claim 30 is neither taught nor suggested by Kung. Therefore, independent claim 30 and dependent claims 31-34 are allowable.

#### **V. Response to Rejection of Independent Claim 35**

The Examiner rejected claim 35 under 35 U.S.C. 102(e) as being anticipated by Kung. All the IP addresses described in Kung are global IP addresses. For example, Kung describes that "an individual IP address may be assigned to each device coupled to the broadband residential gateway 300" or that a single IP addresses can be assigned to a broadband residential gateway with port addresses assigned to devices that are connected to the gateway. Col. 7, lines 33-40. In either arrangement, Kung uses only global IP addresses and nowhere in these sections does Kung refer to local IP addresses.

However, Applicants claim "assigning a single global Internet Protocol address per customer domain name to at least one gateway" and "assigning local Internet Protocol addresses to all endpoints administered by the at least one gateway." As Kung only uses global IP addresses, it fails to teach or suggest assigning one global address to a gateway and then local addresses to endpoints administered by the gateway.

Moreover, in making this rejection the Examiner also asserts that the "call managers" in Kung read on Applicants' claimed "modified proxy servers." The call management server described in Kung, however, is involved setting-up, monitoring and tearing-down calls. Col 10, line 54 - Col. 11, line 6. This is different than a proxy server, such as a SIP proxy server, that performs signaling actions on behalf of other servers or entities. Thus, the call managers in Kung are different from the modified proxy server claimed by Applicants.

Accordingly, Kung does not teach or suggest Applicants' claim 35, and it is therefore in condition for allowance.

#### **VI. Response to Rejection of Independent Claim 39**

The Examiner rejected claim 39 under 35 U.S.C. 102(e) as being anticipated by Kung. In making this rejection, the Examiner asserts that Kung's "IP local number portability database" reads on Applicants' "directory server." Local Number Portability ("LNP"), however, is an industry-wide method by which different directory numbers can be ported to different service providers. Thus, an LNP database, such as the IP LNP database described in Kung, is not used to perform lookups using alphanumeric names and fictitious internal telephone numbers, and it does not perform the same function as a directory server.

Moreover, Kung does not teach or suggest normalizing all internal network functions such as matching decisions to be based on customer addresses. In fact, the sections in Kung cited

by the Examiner as purportedly teaching this element do not even mention customer addresses, let alone normalizing all internal network functions to be based on customer addresses. Thus, Kung does not teach or suggest all elements of Applicants' claim 39, and it is therefore in condition for allowance.

#### **VII. Response to Rejection of Independent Claim 40**

The Examiner rejected claim 40 under 35 U.S.C. 102(e) as being anticipated by Kung. In making this rejection, the Examiner asserts that Kung teaches providing customized call processing logic and related data in the profiles of the called and calling users, and that Kung also teaches accessing the customized elements for use in real-time call processing. The Examiner cites Col. 20, lines 10-27 as purportedly teaching using customized elements in real-time call processing. However, this section only discusses displaying various "informational status" and for providing "a display of real time status of various devices connected to the broadband residential gateway." It does not teach accessing customizable elements for use in real-time call, as it only teaches monitoring calls and not processing those calls. Additionally, this section in Kung is unrelated to the sections the Examiner cites as purportedly teaching providing customized call processing logic and related data in the profiles of the called and calling users.

Moreover, the Examiner cites Col. 20, lines 10-55 and Col. 26, lines 27-40 as teaching using the customer addresses of the calling and called parties, whereby routing and matching decisions are based on user's identities. These section, however, fail to even mention customer addresses. And, they clearly do not each routing calls based on the user's identities instead of the user's location." As previously discussed with respect to claim 1, Kung does not allow for a user to move to different locations within the same network and still retain the user's customer address. Thus, in Kung the user's location and the user's identity are the same. In contrast,

Applicants claim a system in which a user can move to different locations within the telephone network while still maintaining the same identity.

Therefore, Kung fails to teach or suggest all elements of Applicants' claim 40, and it is therefore in condition for allowance.

### **VIII. Response to Rejection of Independent Claim 41**

The Examiner rejected claim 41 under 35 U.S.C. 102(e) as being anticipated by Kung. In making this rejection, the Examiner relies on Col. 20, lines 10-55 as purportedly teaching a customized call processing sequence for matching and routing decisions trees from at least one palette of icons and from a menu or table driven equivalent set of options. This passage, however, simply describes how a display can be used to "display various informational status such as multimedia mail, called ID, call logs, call in progress and associated information, call waiting information, call conferencing information, and/or other call related information." Col., 20, lines 14-19. It may also display the status of devices connected to the broadband residential gateway. Col. 20, lines 19-21. Contrary to the Examiner's assertions, it does not describe a customized call processing sequence for matching and routing decision trees. In fact, it does not even discuss routing at all.

Moreover, the Examiner then cites Col. 30, lines 23-35 as teaching storing the customized call processing sequence and related data in a profile of an individual user. However, this section in Kung is unrelated to the other section in Kung previously cited as supposedly teaching assembling the customized call processing sequence. Finally, the Examiner cites to Col. 24, lines 30-55 as teaching downloading the call processing sequence and data from the profile to one of at least a real-time data processing server and a call agent. Here again, the section cited by



the Examiner describes downloading "protocol data" and is unrelated to the other two previously cited sections.

Thus, the Examiner cites one section from Kung as purportedly teaching the creation of a customized call processing sequence, another unrelated section in Kung as purportedly teaching the storing of that sequence and still another unrelated section in Kung as purportedly teaching the downloading of that sequence. These three section in Kung that are unrelated to each other simply do not teach or suggest the elements claimed by Applicants.

Therefore, claim 41 is in condition for allowance.

#### **IX. Response to Rejection of Independent Claim 43**

The Examiner rejected claim 43 under 35 U.S.C. 102(e) as being anticipated by Kung. Claim 43 has been amended to clarify that the network address object stored in the directory server includes a plurality of fields to indicate the presence of a guest user at a station within the Virtual Private Network and to dynamically associate a customer address for the guest user with the network address for the station. Thus, a user of the VPN can log on as a guest at another station within the VPN and have that user's customer number then associated with the network address for that station.

As previously described with respect to claim 1, Kung neither teaches nor suggests dynamically altering the association of customer addresses and network addresses. Further, Kung does not even teach or suggest a directory server having a network address object that includes a plurality of fields to indicate the present of a guest user at a station within the VPN. While the Examiner cites to Col. 10, line 54 - Col. 11, line 6 in support of this rejection, this passage simply lists a number of features of the call manager 218. As previously described, the call manager 218 described in Kung is different than Applicants' directory server, as the call

manager 218 in Kung is not involved in the real-time processing of calls. Moreover, the features listed in this passage simply do not include indicating the present of a guest user.

The Examiner additionally cites to Col. 23, lines 13-39 and Col. 24, lines 30-55 to support this rejection. These passages discuss local number portability ("LNP"), which is an industry-wide method that allows telephone numbers to be ported across local exchange carriers. LNP is not used to allow users of a Virtual Private Network to roam to different locations within that network. Thus, these passages cited by the Examiner simply do not teach or suggest the elements of Applicants' claim 43.

Therefore, claim 43 is in condition for allowance.

**X. Response to Rejection of Independent Claim 44**

The Examiner rejected claim 44 under 35 U.S.C. 102(e) as being anticipated by U.S. Pub. No. 2002/0010803 ("Oberstein"). Oberstein teaches a method for establishing, monitoring and managing connectivity for communication among heterogeneous systems, such as client-server networks. As described in the Summary section, a server framework and an agent framework can operate in conjunction to detect events, monitor the state of events, and provide notification of events via various delivery transports. Paragraphs 0012-0013. Oberstein does not describe a telephone network, let alone one with the particular elements claimed by Applicants.

In making this rejection, the Examiner cites to ¶¶ 32, 58, 66-68, 74. None of these paragraphs, however, describe a telephone network nor do any of these paragraphs even refer to a virtual private network, as are both expressly recited in Applicants' preamble. Thus, it is clear that Oberstein does not at all teach or suggest a method in a telephone network of "allowing roaming users to log on as "foreign users" in Virtual Private Networks other than a home network," let alone one with the elements claimed by Applicants.

Therefore, the comparisons the Examiner draws between various elements in Oberstein and the elements claimed by Applicants are fundamentally flawed, because the elements in Oberstein are simply not providing the functionality as claimed by Applicants. Other portions cited by the Examiner just do not support the cited proposition. For example, the Examiner cites ¶¶ 32, 66, 67 and 74 as teaching Applicants' claimed element of allowing external Session Initiation Protocol queries to access said directory server, perform the lookup, and receive the directory number. However, nowhere in these paragraphs is the Session Initiation Protocol even mentioned.

Accordingly, Oberstein neither teaches nor suggest Applicants' claim 44, and therefore it is in condition for allowance.

#### **XI. Response to Rejection of Independent Claim 45**

The Examiner rejected claim 45 under 35 U.S.C. 103(a) as being unpatentable over Kung in view of U.S. Patent No. 6,493,760 ("Pendlebury"). Kung generally describes that a "cookie (e.g., a token)" may be periodically downloaded from a server to a subscribing member's BRG ("broadband residential gateway"). Col 35, lines 8-25. For example, "if the subscribing member pays a monthly fee for access to intercom calls to other members of a CUG, then a cookie may be downloaded each month that give the BRG the authorization for that month to provide direct <sup>4b</sup> intercom service" and to bypass the CM. Col. 35, lines 19-25. Thus, Kung teaches using one cookie to authorize calls for particular time period instead of using one cookie for each individual call.

In fact, Kung teaches that where "an intercom call is to be billed on a per-call basis, then it may be preferable to have the intercom call initially be directed to the CM 218." It then goes on to describe that "[i]f the intercom call is to be billed at a flat periodic rate wherein the calls are

not being individually billed, then a server in the network...may download a cookie (e.g., a token) to the subscribing member's BRG." Col 35, lines 17. That is, Kung specifically teaches away from using a cookie (e.g., token) for each call. Moreover, Kung only teaches using cookies for intercom calls to members of a CUG and not for any other types of calls.

In contrast, Applicants claim "returning a token from a proxy server at a terminating gateway to a call agent in an originating gateway." Additionally, Applicants claim "returning the token to the terminating gateway from the originating gateway, in the call, when a Public Switched Telephone Network voice path is eventually established." The token claimed by Applicants travels from the terminating gateway to the originating gateway and then also travels from the originating gateway to the terminating gateway. Thus, Applicants claim bi-directional travel of the token. Kung only teaches downloading a token in one direction -- from a server to a BRG. Moreover, Kung does not even teach or suggest sending the token between a terminating gateway and an originating gateway -- even just in one direction.

Additionally, in making the rejection the Examiner relies on Pendlebury by asserting that it teaches searching a database of calls in progress at the terminating end, obtained from the proxy server, for a match with the token returned. Pendlebury relates to a token-enabled document services system. Col. 1, lines 9-13. It teaches a distributed token-enabled operating environment in which a mobile computing device dynamically formulates and/or stores document tokens that reference electronics documents located on file servers coupled to a wire-based network. Col. 2, lines 18-23. Thus, the tokens described in Pendlebury are used to reference electronic documents and are not used in any way for call setup. In fact, Pendlebury does not even deal with call setup in a telephone network. Thus, the sections cited by the Examiner simply refer to using tokens to browse and access documents. They do not teach or

suggest "searching a database of calls in progress at the terminating end, obtained from the proxy server, for a match with the token returned."

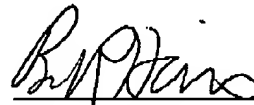
Kung and Pendlebury, either alone or in combination, do not teach or suggest all elements of Applicants' claim. Therefore, claim 45 is in condition for allowance.

## **XII. Conclusion**

In light of the above remarks, Applicants submit that the present application is in condition for allowance and respectfully request notice to this effect. The Examiner is requested to contact the Applicants' attorney, Brian Harris, at his direct dial number (312-913-3303) if any questions arise or he may be of assistance to the Examiner.

Respectfully submitted,

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